PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference 112624.00138 PCT	FOR FURTHER ACTION	See item 4 below	
International application No. PCT/US2005/015764	International filing date (day/month/year) 06 May 2005 (06.05.2005)	Priority date (day/month/year) 06 May 2004 (06.05.2004)	
International Patent Classification (8 See relevant information in Form	th edition unless older edition indicated) PCT/ISA/237		
Applicant ARIZONA BOARD OF REGENTS	S, acting for and on behalf of Arizona State L	Jniversity	

1.	This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).					
2.	This REPORT consists of a total of 4 sheets, including this cover sheet.					
	In the attached sheets, any refer- to the international preliminary	ence to the written opinion of t report on patentability (Chapte	he International Searching Authority should be read as a reference r I) instead.			
3.	3. This report contains indications relating to the following items:					
	Box No. I	Basis of the report				
	Box No. Π	Priority	·			
	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability				
	Box No. IV	Lack of unity of invention				
:	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement				
	Box No. VI	Certain documents cited				
	Box No. VII	Certain defects in the inter-	national application			
	Box No. VΠI	Certain observations on the	e international application			
4.	4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis.2).					
			Date of issuance of this report 07 November 2006 (07.11.2006)			
	The International Bur 34, chemin des Co	lombettes	Authorized officer Dorothée Mülhausen			
1211 Geneva 20, Switzerland Facsimile No. +41 22 338 82 70		witzerland	e-mail: pt01@wipo.int			

Form PCT/IB/373 (January 2004)

PATENT COOPERATION TREATY

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REC'D 0 2 SEP 2005 From the INTERNATIONAL SEARCHING AUTHORITY **PCT** WIPO ROBERT D. ATKINS OUARLES & BRADY STREICH LANG LLP ONE RENASISSANCE SQUARE WRITTEN OPINION OF THE TWON NORTH CENTRAL AVENUE INTERNATIONAL SEARCHING AUTHORITY PHOENIX, AZ 85004 (PCT Rule 43bis.1) 31 AUG 2005 Date of mailing . (day/month/year) FOR FURTHER ACTION Applicant's or agent's file reference See paragraph 2 below 112624.00138 PCT International filing date (day/month/year) Priority date (day/month/year) International application No. 06 May 2004 (06.05.2004) 06 May 2005 (06.05.2005) PCT/US05/15764 International Patent Classification (IPC) or both national classification and IPC IPC(7): G01N 33/53 and US Cl.: 428/143 Applicant ARIZONA BOARD OF REGENTS 1. This opinion contains indications relating to the following items: Basis of the opinion Box No. I **Priority** Box No. II Non-establishment of opinion with regard to novelty, inventive step and industrial applicability Box No. III Box No. IV Lack of unity of invention Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial Box No. V applicability; citations and explanations supporting such statement Certain documents cited Box No. VI Certain defects in the international application Box No. VII Certain observations on the international application 2. FURTHER ACTION If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered. If this opinion is, as provided above, considered to be a written opinion of the-IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later. For further options, see Form PCT/ISA/220. 3. For further details, see notes to Form PCT/ISA/220. Authorized officer Name and mailing address of the ISA/ US Mnil Stop PCT, Attn: ISA/US

Alicia Chevalier.

Telephone No. (571) 272-1700.

Jean Product-Paralegal Speci

Form PCT/ISA/237 (cover sheet) (January 2004)

Alexandria, Virginia 22313-1450

Commissioner for Patents

P.O. Box 1450

Facsimile No. (703) 305-3230

International application No.
PCT/US05/15764

Box No.	I Basis of this opinion
1. With re	egard to the language, this opinion has been established on the basis of the international application in the language in which it
was fil	ed, unless otherwise indicated under this item
	This opinion has been established on the basis of a translation from the original language into the following language, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With reinvent	egard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed ion, this opinion has been established on the basis of:
a.	type of material
	a sequence listing
	table(s) related to the sequence listing
b.	format of material
	in written format
	in computer readable form
c.	time of filing/furnishing
	contained in international application as filed.
	filed together with the international application in computer readable form.
	furnished subsequently to this Authority for the purposes of search.
3.	In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Addi	tional comments:
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International application No. PCT/US05/15764

Box No. V Reasoned statement under Rule 43 bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

	applicability, citations and expi	mittous supporting successorie	
1. Stater	ment		
	Novelty (N)	Claims NONE	YES
		Claims 1-29	NO
	Inventive step (IS)	Claims NONE	YES
		Claims 1-29	NO
	Industrial applicability (IA)	Claims 1-29	YES
		Claims NONE	NO
			· · · · · · · · · · · · · · · · · · ·

2. Citations and explanations:

Claims 1-29 lack novelty under PCT Article 33(2) as being anticipated by Taylor (U.S. Patent No. 6,103,479).

Taylor discloses an array of chemically reactive sites comprising a substrate and a plurality of three-dimensional microstructures formed on the substrate, each three-dimensional microstructure being made with polymer material and having a plurality of reactive sites formed on a surface of the three-dimensional microstructure.

Claims 1-29 lack novelty under PCT Article 33(2) as being anticipated by Brennan (U.S. Patent No. 6,210,894).

Brennan discloses an array of chemically reactive sites comprising a substrate and a plurality of three-dimensional microstructures formed on the substrate, each three-dimensional microstructure being made with polymer material and having a plurality of reactive sites formed on a surface of the three-dimensional microstructure.

Claims 1-29 lack novelty under PCT Article 33(2) as being anticipated by Walt et al. (U.S. Patent No. 6,377,721).

Walt discloses an array of chemically reactive sites comprising a substrate and a plurality of three-dimensional microstructures formed on the substrate, each three-dimensional microstructure being made with polymer material and having a plurality of reactive sites formed on a surface of the three-dimensional microstructure.

Claims 1-29 lack novelty under PCT Article 33(2) as being anticipated by Okamoto et al. (U.S. Patent No. 6,548,020).

Okamoto discloses an array of chemically reactive sites comprising a substrate and a plurality of three-dimensional microstructures formed on the substrate, each three-dimensional microstructure being made with polymer material and having a plurality of reactive sites formed on a surface of the three-dimensional microstructure.

Claims 1-29 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.

PATENT COOPERATION TREATY

From the	ONAL SEARCH	TNG AUTHO	ORITY	00012			REC'D 0 2	SEP 20	05
To: ROBERT D. ATKINS QUARLES & BRADY STREICH LANG LLP ONE RENASISSANCE SQUARE TWON NORTH CENTRAL AVENUE PHOENIX, AZ 85004		XX/	PCT RITTEN OPINION	WIPO OR THE		Pi			
		· · ·	ONAL SEARCHIN		ΓΥ				
						(PCT Rule 43bis.	.1)		
					Date of mailing (day/month/year)		JG 2005		
	s or agent's file re	eference	٠.		FOR FURTHER	R ACTION See paragraph 2 below	7		
112624.00	138 PCT al application No	•	Internation	al filing date	(day/month/year)	Priority date (day/mo	onth/year)		
	PCT/US05/15764 06 May 2005 (06.05.20				06 May 2004 (06.05.	.2004)			
Internation	al Patent Classific	cation (IPC)	or both nation	nal classificat	tion and IPC	•	•		
	1N 33/53 and US	Cl.: 428/143	3						
Applicant								1	
ARIZONA	BOARD OF RE	GENIS			<u> </u>				
1. This o	pinion contains it	ndications rel	ating to the f	ollowing iten	ns:				
\boxtimes	Box No. I	Basis of the	opinion	•					
	Box No. II	Priority				•			
	Box No. III	Non-establ	ishment of o	pinion with re	egard to novelty, inv	entive step and industrie	al applicability		
	Box No. IV	Lack of un	ity of invention	on		•			
	Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement								
	Box No. VI	Certain do	cuments cited	ł					
	Box No. VII	Certain def	fects in the in	ternational a	pplication	•			
	Box No. VIII	Certain obs	servations on	the internati	onal application				
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IPEA of For	a written reply to rm PCT/ISA/220	ogether, when or before the	re appropriat expiration o	e, with amen	idments, before the (IPEA, the applicant is expiration of 3 months in the expires later applicant is a second contract that is a second contract to the expires of	from the onte of h	to the nailing	
For fu	irther options, see	e rorm PC1/1	SAVZZU.						
3. For fu	orther details, see	notes to Form	n PCT/ISA/2	20.			•		
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International application No.

PCT/US05/15764

With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filted, unless otherwise indicated under this item. This opinion has been established on the basis of a translation from the original language into the following language which is the language of translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)). With regard to say nucleotide and/or smitno acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of: a. type of material a sequence listing table(a) related to the sequence listing b. format of material in written format: in computer readable form c. time of filing/furnishing contained in international application as filed. filed together with the international application in computer readable form. [cumished subsequently to this Authority for the purposes of search.] In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed, as appropriate, were furnished. 4. Additional comments:	Box No	. I Basis of this opinion
This opinion has been established on the basis of a translation from the original language into the following language—which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(0)) 2. With regard to any nucleotide and/or mitine acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of: a. type of material a sequence listing table(s) related to the sequence listing b. format of material in written format in computer readable form c. time of filing/furnishing contained in international application as filed. filed together with the international application in computer readable form. furnished subsequently to this Authority for the purposes of search. 3. In addition, in the case that more than one version or copy of a sequence listing ant/or table relating thereth has been filled or furnished, the required settements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished. 4. Additional comments:	1. With r	led, unless otherwise indicated under this item.
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in computer readable form c. time of filing/furnishing		table(s) related to the sequence listing
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or furnished, the required statements that the information in the subsequence application as filed or does not go beyond the application as filed, as appropriate, were furnished. 4. Additional comments:		furnished subsequently to this Authority for the purposes of search.
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	4. Add	itional comments:
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International application No. PCT/US05/15764

Box No. V Reasoned statement under Rule 43 bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement 1. Statement Novelty (N) Claims NONE YES Claims 1-29 NO Inventive step (IS) Claims NONE YES NO Claims <u>1-29</u> Industrial applicability (IA) YES Claims <u>1-29</u> Claims NONE NO 2. Citations and explanations: Claims 1-29 lack novelty under PCT Article 33(2) as being anticipated by Taylor (U.S. Patent No. 6,103,479). Taylor discloses an array of chemically reactive sites comprising a substrate and a plurality of three-dimensional microstructures formed on the substrate, each three-dimensional microstructure being made with polymer material and having a plurality of reactive sites formed on a surface of the three-dimensional microstructure. Claims 1-29 lack novelty under PCT Article 33(2) as being anticipated by Brennan (U.S. Patent No. 6,210,894). Brennan discloses an array of chemically reactive sites comprising a substrate and a plurality of three-dimensional microstructures formed on the substrate, each three-dimensional microstructure being made with polymer material and having a plurality of reactive sites formed on a surface of the three-dimensional microstructure. Claims 1-29 lack novelty under PCT Article 33(2) as being anticipated by Walt et al. (U.S. Patent No. 6,377,721). Walt discloses an array of chemically reactive sites comprising a substrate and a plurality of three-dimensional microstructures formed on the substrate, each three-dimensional microstructure being made with polymer material and having a plurality of reactive sites formed on a surface of the three-dimensional microstructure. Claims 1-29 lack novelty under PCT Article 33(2) as being anticipated by Okamoto et al. (U.S. Patent No. 6,548,020). Okamoto discloses an array of chemically reactive sites comprising a substrate and a plurality of three-dimensional microstructures formed on the substrate, each three-dimensional microstructure being made with polymer material and having a plurality of reactive sites formed on a surface of the three-dimensional microstructure. Claims 1-29 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.